



Attorney Docket No.: 5636.210-US

PATENT

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7/10/02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Nielsen et al.

Confirmation No: 6089

Serial No.: 10/038,723

Group Art Unit: 1652

Filed: January 2, 2002

Examiner: To be assigned

For: Glucoamylase Variants

**PRELIMINARY AMENDMENT**

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ORIGINALLY FILED*

Commissioner for Patents  
Washington, DC 20231

Sir:

Before examination, please amend the above-identified application as follows:

**IN THE CLAIMS:**

*Please cancel claims 1-18 without prejudice or disclaimer.*

*Please add new claims 29-140, as follows:*

29. An isolated variant of a parent glucoamylase comprising one or more of the following mutations in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in a homologous glucoamylase having at least 60% homology with the amino acid sequence shown in SEQ ID NO:2:

N20T;

A27S or T;

S30 T or N;

D112N;

Y116F;

S119A or R or N or D or Q or H or I or L or K or F or M or T or V;

S122A or N or D or C or Q or E or G or H or I or L or K or F or M or P or S or T or W or V;

N171R or K or Q or E or W or F or Y;

Q172A or R or N or D or C or E or G or H or I or L or K or F or M or P or S or T or W or Y or V;

T173K or R or S or N or Q;